

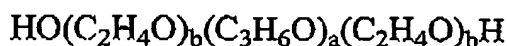
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Amendments to the Claims

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A composition comprising, a nonionic block copolymer, wherein the block copolymer has the following formula:



wherein "a" is a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(\text{C}_2\text{H}_4\text{O})_b$ ~~portion~~ portions of the block copolymer, represented by the polyoxyethylene ~~portion~~ portions of the block copolymer, ~~is together are~~ approximately 1% to approximately 50% of the total weight of the block copolymer, and

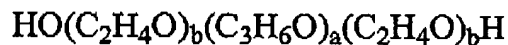
one or more nucleic acid molecules selected from the group consisting of: oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, ~~or~~ and mixtures thereof;

wherein the composition further comprises an antimicrobial drug selected from the group consisting of: rifampin, isoniazid, ethambutol, gentamicin, tetracycline, erythromycin, pyrazinamide, streptomycin, clofazimine, rifabutin, fluoroquinolones, azithromycin, clarithromycin, dapsone, doxycycline, ciprofloxacin, ampicillin, amphotericin B, fluconazole, ketoconazole, pyrimethamine, sulfadiazine, clindamycin, paromycin, diclazaril, atovaquone, pentamidine, acyclovir, trifluorouridine, AZT, DDI, DDC, ~~forseomax~~, forseomax, viral protease inhibitors, ganciclovir, ribavirin, antiviral nucleoside analogs, ~~or~~ and a combination thereof.

2-21 (Cancelled).

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22. (Currently Amended) A method of delivering a molecule to an animal, comprising administering to the animal a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:



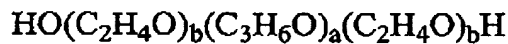
wherein "a" is a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(\text{C}_2\text{H}_4\text{O})_b$ ~~portion~~ portions of the block copolymer, represented by the polyoxyethylene ~~portion~~ portions of the block copolymer, is together are approximately 1% to approximately 50% of the total weight of the block copolymer,

wherein the nonionic block copolymer facilitates entry of the molecule into a cell, and

one or more nucleic acid molecules selected from the group consisting of: oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, ~~or~~ and mixtures thereof;

wherein the one or more nucleic acid molecules are used for hybridization with one or more targeted RNA messages of a cell or virus.

23. (Currently Amended) A method of delivering a molecule to an animal, comprising administering to the animal a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:



wherein "a" is a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(\text{C}_2\text{H}_4\text{O})_b$ ~~portion~~ portions of the block copolymer, represented by the polyoxyethylene ~~portion~~ portions of the block copolymer, is together are approximately 1% to approximately 50% of the total weight of the block copolymer,

wherein the nonionic block copolymer facilitates entry of the molecule into a cell, and

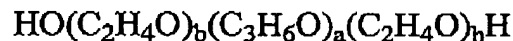
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one or more nucleic acid molecules selected from the group consisting of: genes, oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, ~~or~~ and mixtures thereof;

wherein the one or more nucleic acid molecules are used for supplying ~~a normal copy of a defective gene~~ to an animal with a defective copy of one of its genes a normal copy of that gene.

24. (Cancelled).

25. (Currently Amended) A method of delivering a molecule into a cell, comprising contacting the cell with a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:



wherein "a" is a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(\text{C}_2\text{H}_4\text{O})_b$ ~~portion~~ portions of the block copolymer, represented by the polyoxyethylene ~~portion~~ portions of the block copolymer, is together are approximately 1% to approximately 50% of the total weight of the block copolymer,

wherein the nonionic block copolymer facilitates entry of the molecule into a cell, and

one or more nucleic acid molecules selected from the group consisting of oligonucleotides, antisense oligonucleotides, triplex DNA compounds, ribozymes, ~~or~~ and mixtures thereof.

26. (Cancelled)

27. (Previously Presented) The method of Claim 25, wherein the one or more nucleic acid molecules are used for altering gene activity.

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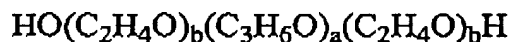
28. (Currently Amended) The method of Claim 25, wherein the one or more nucleic acid molecules encode a gene or an antisense oligonucleotide.

29. (Previously Presented) The method of Claim 28, wherein the one or more nucleic acid molecules are used for intracellular immunization.

30. (Previously Presented) The method of Claim 28, wherein the one or more nucleic acid molecules are used for hybridization with one or more targeted RNA messages of a cell or virus.

31-36. (Cancelled).

37. (Currently Amended) A method for immunizing an animal against a particular gene product comprising administering to an animal a composition comprising a nonionic block copolymer, wherein the block copolymer has the following formula:



wherein "a" is a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_5\text{O})_a$, represented by the polyoxypropylene portion of the copolymer, is between approximately 750 and 15,000 Daltons; and "b" is a number such that the hydrophile $(\text{C}_2\text{H}_4\text{O})_b$ portion portions of the block copolymer, represented by the polyoxyethylene portion portions of the block copolymer, is together are approximately 1% to approximately 50% of the total weight of the block copolymer,

an expression vector, wherein the expression vector contains a gene that codes for the gene product to be immunized against;

and wherein the composition further comprises approximately 0.1% to approximately 5% by weight of a surfactant.

38. (Currently Amended) The composition method of claim 37, further comprising approximately 0.5% to approximately 5% by volume of a low molecular weight alcohol.

39-42. (Cancelled).